| 1  | RED HILL TASK FORCE SUBGROUP MEETING # 2            |
|----|---|
| 2  | Wednesday, November 26, 2014                        |
| 3  | 10:02 a.m. to 12:05 p.m.                            |
| 4  | 919 Ala Moana Boulevard, Fifth Floor                |
| 5  | Honolulu, Hawaii 96814                              |
| 6  | * * * * * *   |
| 7  | MR. GILL: Good morning. It's a couple               |
| 8  | minutes after 10:00 o'clock. This is Gary Gill,     |
| 9  | deputy director for Department of Health, convening |
| 10 | the second subgroup meeting of the task force.      |
| 11 | We'll begin with introductions around the table and |
| 12 | in the audience, and then our agenda is very        |
| 13 | simple. We're going to review the draft combined    |
| 14 | document with an eye towards preparing a draft for  |
| 15 | final approval of the full Red Hill Task Force on   |
| 16 | the 11th of December.                               |
| 17 | So starting on my left from the Board of            |
| 18 | Water Supply, can you speak loudly so everybody can |
| 19 | hear who you are?                                   |
| 20 | MR. LAU: Go ahead. You can start.                   |
| 21 | MR. KAWATA: I'm Erwin Kawata, Board of              |
| 22 | Water Supply.                                       |
| 23 | MR. LAU: Ernest Lau, Board of Water                 |
| 24 | Supply.   |
| 25 | MR. GILL: And to my right from the Navy?            |

| 1  | MR. POENTIS: Aaron Poentis from Navy         |
|----|--|
|    |  |
| 2  | Region Environmental.                        |
| 3  | CAPTAIN WILLIAMSON: Mike Williamson,         |
| 4  | Navy Region Hawaii.                          |
| 5  | MR. GILL: And EPA on the phone, who do       |
| 6  | we have with us?                             |
| 7  | MR. LINDER: Steve Linder.                    |
| 8  | MR. GILL: Just you, Steve?                   |
| 9  | MR. LINDER: I think Rebecca Reynolds may     |
| 10 | be dialing in separately a little bit later. |
| 11 | MR. GILL: Okay. Welcome.                     |
| 12 | Behind me in the audience, please speak      |
| 13 | loudly.                                      |
| 14 | MR. PURCELL: Dan Purcell, member of the      |
| 15 | public.                                      |
| 16 | MR. GILL: Thank you.                         |
| 17 | MR. WOOD: Bob Whittier, Department of        |
| 18 | Health.                                      |
| 19 | MR. CHENET: Bob Chenet, Commission on        |
| 20 | Water Resource Management.                   |
| 21 | MR. YOSHIOKA: Wayne Yoshioka of Hawaii       |
| 22 | Public Radio.                                |
| 23 | MS. SHIMABUKU: June Shimabuku, NAVFAC        |
| 24 | Hawaii.                                      |
| 25 | MR. CLEMENTS: Tom Clements, Navy Region      |

1 Hawaii.

LT. COMMANDER LOVGREN: Lt. Commander Lovgren, FLC Pearl Harbor.

MR. GILL: Okay. And from my staff, Solid and Hazardous Waste Branch?

MR. CHANG: Steve Chang, Department of Health.

MS. PERRY: Thu Perry, Underground Storage Tanks.

MS. KWAN: Roxanne Kwan, Underground Storage Tanks.

MR. GILL: Okay. And that is the complete list of folks we have with us in addition to the court reporter helping us with the notes.

So just by way of introduction, I think we had a real productive meeting the last time this subgroup got together trying to find a way to practically put together a report from the full task force. The two main issues that I think we resolved was that, first, we wouldn't try to circulate the report for signature from all the members of the task force because the particulars were concerns of the timing and legal ability for federal agencies to sign on with such a report advising the state legislature. So we agreed that

we would try and combine a report and then it would be submitted just under the signature of the Department of Health.

Then, secondly, regarding the format of the report, rather than trying to couple together a consensus on everything in the report, we decided to list the various recommendations or findings by agency and identify which agency was making those recommendations and not try to assert that we had any kind of unanimous or consensus support on all the different recommendations that were coming from the different members of the task force.

So with that in mind, what we did is, working offline over the internet, we submitted a draft report trying to combine all the issues and the words that were submitted by various task force members into a single document. We went through a couple of variations of that, and we have the latest subgroup combined report dated today before us.

We did receive a significant number of suggestions from the Navy and some new language from the Department of Land and Natural Resources as well, additional language from the Board of Water Supply. So what the Department of Health

staff attempted to do was to merge all of these things into a single document for our review today.

It would be my hope that we can get close to a common understanding amongst the people of this subgroup and, probably with a little bit more polish and refinement, be ready to have a document for final review and approval by the full task force in just, what is what, 10 days from now or so. Just under two weeks.

So what I'd like to suggest we do is to take the combined document. I think we're ready to project it up so everyone in the audience as well can see it, and try and take it not word by word, but perhaps page by page and hear if there's any substantive concerns. If people have simple edits or technical fixes or things for clarity, rather than discussing those in detail, we would like to get them just submitted so we can tune up the document accordingly. But if there are any substantive issues, I'd like to discuss them in this forum and, hopefully, decide whether to include or exclude any given text or add any additional clarity to this document before it is refined and submitted to the full task force.

It looks like we're having a little --

MR. LAU: Technical difficulties.

MR. GILL: It never happens that we have computer difficulties here.

While we're trying to get the document up and projected, let me just pause and ask members of the task force if you have any other suggestions on how this meeting ought to go today or any particular thoughts to share?

MR. LAU: I think what you suggested, Gary, works for us.

MR. GILL: Okay.

tremendous amount of work went into this. So I appreciate everybody turning and burning and putting the documents together. So I think -- I'm sort of reading the final draft right now, the final final for the first time, but I have marked up the previous version. So I see a lot of improvements have been made. So I appreciate the effort that's gone into this.

MS. KWAN: We're going to get another copy. It looks like it's jumbled. I don't know what happened.

MR. GILL: It looks we have kind of a Word coding issue there, but I'm in favor of all

those X's on the page there. Maybe if you clicked on, you know, the final document instead of all the markup, but it looks like --

MS. KWAN: I didn't even go there.

MR. GILL: Okay. It looks like we have an incompatibility between Word versions. So maybe we can struggle through this manually.

Thu, could I maybe ask you to, as the reviser of the document, perhaps lead us through this?

MS. PERRY: I could give it a shot. I wasn't here Monday. So Roxanne did a lot of the combining and agreed to work on the different sections.

Generally, the first page is we removed the introduction of the SCR up to the front. So that's how it starts, but meanwhile, the content is pretty much the same. So this is just ordered.

CAPTAIN WILLIAMSON: We have no comments or concerns with page 1.

MR. LAU: Actually, I'll give this to

Gary, but we can give a copy to you, Mike. But on

the bottom of page 1, we noted our comments in red.

It's just a suggestion there. Assuming that the

reader of the report is going to be somebody that

knows very little or nothing about the facility, we're adding just a paragraph talking about the history, a little bit of the history. The facility was built between 1940 and 1943 and has a history of fuel releases dating back to 1949 and documenting quantities up to 1.2 million gallons at the facility, including an oily waste disposal site.

CAPTAIN WILLIAMSON: So I disagree with that comment because if you tell part of the history, you need to tell all the history; otherwise, you're misinforming the readers. So I think these points can be brought out Findings of Fact further in the document rather than providing bits and pieces of fact up-front that might mislead the readers in the front end.

MR. LAU: No. Mike, I have a problem. I think it would be good someplace to capture the whole history of the facility for the reader that knows nothing about it where if they were to pick up the report, they would have a complete picture to look at.

So if you can find a better place to put it, Gary, then we're open to that.

MR. GILL: Okay. So the Board of Water

Supply has submitted a red-line version of the subgroup combined report with a suggested inclusion of just one sentence in the introduction. Why don't we just accept that as a recommendation and ask staff to --

MR. LAU: Take a look at it.

MR. GILL: -- take a look at it, but let me make sure that -- I'm not sure that the Navy would agree to the wording.

CAPTAIN WILLIAMSON: We -- I mean, right up front, we took the 1940 to '43 out of that section, and that was your staff put that together based on our recommendation. Now the recommendation is to put it back in. So I think we need to have a business rule that says it was in, it was out, and now it's back in again and then does it go out again. I mean, what's your business rule for getting resolution? Because your staff is going to say, "Oh, great, I'll put it back in again." So what's the business rule?

MR. GILL: Well, I think what I heard was a suggestion that this kind of information would be appropriate in a finding of fact somewhere in the document, but I wasn't sure if you agreed that it was an accurate finding of fact. So if the Navy's

okay with including this background information as a finding of fact somewhere out -- somewhere other than the introduction, then we can do that. If you don't like the wording, then --

from?

CAPTAIN WILLIAMSON: My issue is I want to make sure it is put in context.

MR. LAU: Actually, there is an Appendix
B in the report that's entitled -- yeah, it's
interesting. It has a title of "DOH and BWS
History of Red Hill." I'm not sure why it says,
"DOH and BWS History."

MR. GILL: What page is that again?

MR. LAU: Page 15, Appendix B. Maybe

it's appropriate to expand that a little bit and

capture, I think, the history of the facility, when

it was constructed, the history of leaks, the

efforts in the Navy over time to improve the

facility. It might be a good place to kind of

capture in an appendix and then, in the beginning,

you can just make a referral back to the appendix

for some background on the facility. That would be

cleaner, I think.

CAPTAIN WILLIAMSON: I'm okay with that. Where is the 1.2 million gallons coming

1 MR. LAU: Erwin? 2 MR. KAWATA: That's been reported in the 3 past. 4 CAPTAIN WILLIAMSON: Where is it coming 5 from, the reference? MR. KAWATA: It was reported in the past 6 7 in that senate hearing. CAPTAIN WILLIAMSON: Well, I think that 8 9 came from --10 MR. LAU: Department of Health. 11 MR. GILL: And as we've discussed over 12 time over the past months, you know, that number 13 came out of a Navy report with an interpreted 14 number that might be -- you know, it's hard to 15 verify. So although that number was in our 16 original slide show in the senate hearing many 17 months ago, we no longer rely on that number as 18 fact because it may have been a reporting error --19 MR. CHANG: It's anecdotal. 20 information was in a report regarding, I think, the 21 oily waste disposal facility, and it was a 22 statement made by -- collected from an employee and 23 there was no references, but it made reference --24 so it's not -- there's no cooperation on that. 25 MR. LAU: So we're okay with leaving the

1 discretion of that number up to the Department of 2 Health. CAPTAIN WILLIAMSON: Well, the number 3 4 should be fact; right? We should put the facts in 5 the report. MR. LAU: And I guess that number came 6 7 out of our Navy report. 8 CAPTAIN WILLIAMSON: No. It came from an 9 interview. 10 That is in the Navy report. MR. LAU: 11 MR. GILL: The fact is we don't have any 12 verifiable, factual data about the total amount of 13 gallons spilled in Red Hill over the past 70 years. 14 We have lots of anecdotal information and reports 15 from the Navy gathered together with assertions or 16 estimates, and so there is really no way of tagging 17 this number accurately and verifying it. 18 CAPTAIN WILLIAMSON: Today, unless 19 there's some document of document study. MR. LAU: Mike, I'm okay with Gary, if he 20 21 feels that he can't confirm that number and he 22 doesn't feel comfortable putting it in the report 23 to remove. 24 MR. GILL: Okay. Thank you. We'll say lots of stuff. No, we can can't say that. 25

MR. LAU: It's your discretion, Gary, before you leave as deputy director.

MR. GILL: Okay. So thanks for page 1.

So I think what we'll do is, by acclimation here, take this sentence that Board of Water Supply is suggesting to be added, edit to remove the 1.2 million gallons as a number that we can't verify, but take that sentence and move it back to Appendix B which probably needs to be retitled just as background information with the broad history of the tank.

CAPTAIN WILLIAMSON: So can I ask -- can
I ask that that be -- if we're going to do a
history of Red Hill, can I ask that that be a
coordinated history with Lieutenant Commander
Lovgren involved in that as well?

MR. GILL: Sure.

CAPTAIN WILLIAMSON: That would be my suggestion.

MR. LAU: That would be a good idea.

MR. GILL: So with that suggestion, in terms of providing a final edited version for the full task force, ask my staff to coordinate with Navy staff and the Board of Water Supply to look down this Appendix B history. I don't think it's

appropriately labeled to be like one department's or agency's history. I think that's a carryover from a previous draft. So we'll need to relabel that and happily work with the Navy to put that appendix together in a mutually agreeable format for the final document.

CAPTAIN WILLIAMSON: Sounds good.

MR. GILL: Okay. So it looks like we have the document up now in all of its red-lined and blue-underlined version.

So, Roxanne or Thu, do you want to take us to page 2?

MS. PERRY: I'm not sure this version is going to be that helpful, but it's just to show that we did try to incorporate verbatim as much as we could.

MR. CHANG: So it attempts to show the different contributors and their additions. So different colors represent the different parties that had suggestions to making changes, and then you can see like I believe the blue is Navy comments, and where they have made deletions of the original text will show up as a blue deletion. I believe the red ones are -- I'm not sure. We have to check.

1 MS. PERRY: The Navv. 2 MR. CHANG: Does that say who the 3 original of that comment? MS. PERRY: It doesn't show. 4 5 MR. CHANG: So it might be Department of Health and the green comments are --6 7 MS. KWAN: They're just formatting 8 changes. 9 MR. CHANG: All right. So there are 10 different colorations. So you can probably 11 identify -- if you made those suggested comments, 12 you probably can identify what color represents 13 your revisions in the document. 14 So go to the second page, MS. PERRY: 15 Roxanne. I took some liberties in adding this one 16 paragraph because it was kind of unclear -- in 17 terms of when we're talking about straight into 18 results from monitoring wells, it was very unclear. 19 So you guys can look it over. Basically, it's just 20 describing that there is a distinction between the drinking water wells, Board of Water Supply, plus 21 22 the Red Hill Shaft in comparison to strictly 23 groundwater samples taken from monitor wells 1 24 through 5 and also the oily --25 CAPTAIN WILLIAMSON: I think that's

1 helpful. 2 MR. LAU: I think the only thing I added 3 there was, Mike, I believe you folks are also monitoring the seawater deep monitor well located 4 5 on the Halawa Correctional Facility? That data 6 gets reported? 7 MR. POENTIS: We do occasionally. MR. LAU: So I wanted to add that so it's 8 9 clear all the monitoring points within the Navy 10 property and outside the Navy property was 11 captured. 12 MR. GILL: Okay. So Board of Water 13 Supply has suggested including language in this 14 paragraph to identify that DLNR well, which is also 15 being used as a monitoring well and is located on 16 the attached map at the end; right? 17 MR. LAU: Yes. 18 MR. GILL: So just as a background 19 factual matter, it doesn't sound like we have any 20 disagreement with that. 21 MR. LAU: Yeah. 22 Okay. Thu, any other issues MR. GILL: 23 you want to go over on page 2? 24 MS. PERRY: The rest of the page 2 is, I

think, mostly from Navy.

25

CAPTAIN WILLIAMSON: I think we're fine with -- I mean, I think we're fine with what we see here. Tough to piece it all together, but it's okay. We're good. We're good.

MS. PERRY: Just email me.

MR. GILL: So page 3.

MS. PERRY: Page 3. Just a summary of the task force activities, and then there's a note about how Navy and EPA will not submit recommendations because they're federal agencies.

Okay. So the nitty-gritty is just the short-term effects. How did we do this? Because Board of Water Supply -- wait. Wait. In the findings of facts --

MR. LAU: Bottom of page 3.

MS. PERRY: -- we talk about both the vapor and the groundwater monitoring results, and we reference both our appendices as well as the appendices that the Navy has submitted explaining EALs and the Site Specific Risk Based Levels. I don't know if you had time to go over that.

CAPTAIN WILLIAMSON: Can we go back up one? I have a thought on that, but can we go back up to page 3, third paragraph up from the bottom?

It says that -- sort of the middle of the paragraph

there, it says, "Test results of the BWS wells were 1 2 nondetectful of petroleum constituents." With the Navy drinking water wells, there's only one well. 3 Just sort of keeping it consistent. 4 5 MR. POENTIS: It's actually a shaft. MR. LAU: Maybe drinking water source 6 7 which is Red Hill Shaft. 8 CAPTAIN WILLIAMSON: Yeah. So I want to 9 get specific to Red Hill Shaft because I don't want 10 to mislead folks. 11 MR. LAU: It's not a well. I agree. 12 CAPTAIN WILLIAMSON: Okay. So Red Hill 13 Shaft. And it says, "showed detections, but all 14 under DOH environmental action levels." 15 My understanding is our shaft did not 16 test positive for petroleum constituents. It 17 tested positive for lead at a very low level, and 18 we think we understand what the reason for that is, 19 but that's not -- what I don't want to do is 20 mislead the public that we had petroleum 21 constituents in the Red Hill Shaft. That's the 22 point I'd like to make. 23 MS. PERRY: There was TPH. 24 MR. GILL: What is naphthalene?

not a petroleum constituent?

25

1 CAPTAIN WILLIAMSON: It didn't test as a 2 result of -- there have been samples of naphthalene 3 at the edge of detection in the past, but my understanding is we didn't find naphthalene in the 4 drinking water samples at the same time these 5 samples were drawn. 6 7 MR. CHANG: So at the tap when you do 8 your drinking water monitoring, you do not detect 9 any --10 CAPTAIN WILLIAMSON: Correct. I just want to make sure we're not misleading folks. 11 12 MS. PERRY: You're saying historically 13 versus after the release? CAPTAIN WILLIAMSON: Correct. 14 15 MR. POENTIS: After the release. 16 CAPTAIN WILLIAMSON: If you were to say 17 historically, intermittently historically at the 18 edge of detection, I'm fine with that, but I just 19 want to make sure we don't mislead folks. 20 MR. LAU: Probably historically would be 21 more appropriate. 22 MR. GILL: Then the naphthalene hit I saw 23 was in an October report, the October prior to the 24 January release. So I don't know about all the 25 other -- I haven't looked at all the other reports,

but we should be clear that at least that hit of 1 2 naphthalene at very low levels is a historic number not related directly to the January release. 3 CAPTAIN WILLIAMSON: That would be fair. 4 MR. LAU: Yes. I would agree 5 historically because even methylnaphthalene is 6 7 there in 2008 in the drinking water source. 8 MR. GILL: Okay. So staff can make those 9 clarifications. Thank you. Is that --10 CAPTAIN WILLIAMSON: That satisfies my 11 concern with that one. MR. GILL: -- it for page 3? 12 13 CAPTAIN WILLIAMSON: Can I ask about the 14 next paragraph down? It says we've completed the 15 groundwater sampling -- the Groundwater Protection Plan for 2014. Have we completed that, an update, 16 17 or is that in process? 18 MR. LINDER: I'm having a hard time 19 hearing because something is, it sounds like, 20 rubbing against the phone. 21 MR. GILL: Not on our side. We hear the 22 static, Steve, but there's nothing moving or 23 rubbing here. 24 MR. CHANG: It sounds like it's coming 25 from your side.

| 1  | MS. REYNOLDS: Sorry. I think that was              |
|----|--|
| 2  | me. It's Rebecca.                                  |
| 3  | MR. GILL: Oh, Rebecca, put yourself on             |
| 4  | mute.  |
| 5  | MS. REYNOLDS: I thought it was on mute.            |
| 6  | So I apologize for that.                           |
| 7  | MR. GILL: Okay. So where are we on                 |
| 8  | this?  |
| 9  | MS. PERRY: I was just saying there has             |
| 10 | been a 2014 update August that we received to the  |
| 11 | 2008 Environmental Protection Plan. So it has been |
| 12 | updated.   |
| 13 | CAPTAIN WILLIAMSON: So it's signed off             |
| 14 | and completed, no comments? I don't know. I'm      |
| 15 | asking.  |
| 16 | MS. PERRY: Interim update.                         |
| 17 | CAPTAIN WILLIAMSON: There we go. So I              |
| 18 | don't know if there are comments coming back from  |
| 19 | that. Again, I just want to make sure it's         |
| 20 | accurate.  |
| 21 | MR. LAU: And, also, that 2014 report, we           |
| 22 | haven't actually even seen it.                     |
| 23 | CAPTAIN WILLIAMSON: That's what I'm                |
| 24 | after.   |
| 25 | MR. LAU: So maybe the task force has not           |

1 seen --2 MS. PERRY: So 2009. CAPTAIN WILLIAMSON: So 2009, I think 3 4 you've got the interim report. Again, accuracy, 5 the interim report is available from 2014, but I don't know what stage, who has to comment on it or 6 7 not. 8 MR. POENTIS: It has been submitted and 9 we haven't had a response. 10 MR. LAU: Just for the record, BWS hasn't 11 received a copy of that report yet from --12 CAPTAIN WILLIAMSON: That would come from 13 DOH. 14 MR. LAU: -- DOH. Okay. 15 MR. GILL: Okay. So is it fair to say for the document, that we should reference it as 16 17 we've received an interim report that's under 18 review or something? 19 CAPTAIN WILLIAMSON: Correct. That would 20 be more accurate. 21 MR. GILL: All right. Is that it for 22 page 3? 23 MR. LAU: Actually, top of page 3 just 24 after that sentence about the interim report from 2014, in 2009, in an update of this plan, there was 25

a finding of potential northwesterly flow. I'm glad Bob Whittier is here because I think the memos that I saw, which Bob completed while working for TEC, was dated 2010, that brought up the issue of the 20 -- the northwesterly flow gradient after correcting the errors in the elevation.

I -- I thank you for that because I highlighted on the earlier version here. My only concern with that is what is the -- is that his -- and please don't take this the wrong way. Is that his opinion? Is that a hypothesis. Is that based on hard data? I'm just looking for -- because it says, "a finding of potential." So it's either a finding or it's -- finding is -- in our vernacular here, finding is a fact.

MR. LAU: Maybe then you shouldn't say potential. Maybe we can just say northwesterly flow gradient after there was --

 $$\operatorname{\mathtt{And}}$$  this is work done for you folks for the Navy --

CAPTAIN WILLIAMSON: Understand.

MR. LAU: -- under a report that was submitted to the Department of Health. But correcting the elevation errors, elevation data

errors on the various monitor wells at different locations as used to calibrate the model, it was done in 2008. So after that effort, using GPS technology and running levels, elevation survey in the lower access tunnel, they found significant errors in the elevation data which, after corrected, showed that there is actually a northwesterly flow gradient that could point toward Halawa Shaft, which is where we became concerned.

document?

Understand. But can I ask that we go back to that source document because I haven't read that source

CAPTAIN WILLIAMSON: Understand.

MR. LAU: Maybe Aaron is familiar with it.

CAPTAIN WILLIAMSON: Whatever is in that source document in terms of fact or hypothesis or corrections were made to the datum which suggest, again, again, I want to be factual about it.

MR. LAU: Since Department of Health's hydrologist/geologist is here, Gary, could I pose a question to Bob?

MR. GILL: Sure. But I get what Captain Williamson is saying, though. If we're going to put it in this report, we should be clear what the

findings are or whether it is a hypothesis.

So for that clarification, Bob, why don't you come up so EPA can hear you as well, and maybe you can just characterize what -- since you did a bunch of that work, how you think it would be appropriately recorded in this document or described in this document.

MR. WHITTIER: Okay. In reference to Captain Williamson's concerns, what the best GPS data today shows is groundwater elevations decreasing. Going from the midpoint between Moanalua and Kalihi Valleys going toward Red Hill, the groundwater elevations decreased. The aquifer tests done in 2006 actually showed good connectivity from the Red Hill Shaft all the way over to that point between the Moanalua Valley and Kalihi Valley. This is here in Mauna Iki observation well.

MR. LAU: Which is located closer to our Moanalua wells, actually.

MR. WHITTIER: Now, what is not concrete is actually getting the groundwater flow direction gradient because you do not have good triangulation of wells, but if you have connectivity and decreasing water level, that is a strong inference

of groundwater flow moving from southeast to northwest.

The other thing that's not clear is there is a drop, significant drop in water level between the Red Hill facility and the Board of Water Supply's Halawa Shaft, and we don't know that degree of connectivity and that has not been tested yet.

MR. LAU: Thus, the need for more wells in the area to better define that --

MR. GILL: Okay. So, Bob, if you were to --

MR. LINDER: This is Steve Linder. It seems like for the purposes of this document, it maybe can meet everybody's needs if it really just said -- basically, essentially quotes that report, identified that particular 2009 report, indicated a potential northerly flow 'cause I think we all realize more work needs to be done to really better characterize flow directions and potential magnitude of flow from the Red Hill facility towards the Halawa Shaft.

CAPTAIN WILLIAMSON: And, Steve, to your point, that's where I was going to go. I just -- my recommendation is we can reference -- you can

say and I think I liked your term. There's a -there's a, you know, confluence of indicators that
suggest there may be a flow in that direction. We
have a report that we can reference, and further
work needs to be done to figure out the actual
flows. I think those are all accurate statements
that I can certainly live with.

MR. LAU: And, Mike, that's why the word "potential" is there. It still needs to be confirmed with more information.

CAPTAIN WILLIAMSON: So I would recommend that we put a reference to -- maybe we have a reference to that document here, and I'm fine with that, but then the finding, you know, in the context of this document, I just -- and I don't want to get tweaked over words, but a finding is a finding. So there's a -- there's a -- you know, there's reason to believe.

MR. LAU: Actually, that section -- that statement there is actually not under the findings and recommendations.

MR. GILL: All right. Let's not get hung up on the word "findings." I think we know what we're talking about. The report indicates a potential northwesterly flow that needs to be

| 1  | confirmed.   |
|----|--|
| 2  | MR. LAU: That's fine.                              |
| 3  | CAPTAIN WILLIAMSON: I'm fine with that.            |
| 4  | MR. GILL: So with that suggestion, maybe           |
| 5  | staff has enough to go on on the reworking of that |
| 6  | paragraph, and we can all check it before the next |
| 7  | meeting to make sure it's accurate.                |
| 8  | Thanks, Bob.                                       |
| 9  | MR. LAU: Thank you, Bob. Sorry to put              |
| 10 | you on the spot.                                   |
| 11 | MR. GILL: Okay. So does this take us               |
| 12 | to everybody's looking at different marked-up      |
| 13 | versions. So I don't know if we can go page by     |
| 14 | page.  |
| 15 | CAPTAIN WILLIAMSON: No, no. I think we             |
| 16 | can keep going.                                    |
| 17 | MR. LAU: We'll follow.                             |
| 18 | MR. GILL: Aaron, did I sense that you              |
| 19 | had something to add in?                           |
| 20 | MR. POENTIS: No, no. That's fine.                  |
| 21 | MR. GILL: So, Thu, lead us to the next             |
| 22 | page.  |
| 23 | MS. PERRY: The first section is findings           |
| 24 | of facts for the short-term effects of the release |
| 25 | in January. It's kind of summarizing the spike in  |

groundwater monitoring as well as the soil vapor.

Again, we have some tables from Navy reports, and
then Navy also added an appendices that summarizes
the same type of information.

just a one step? Again, it's just for clarification. If you go to page 4, the very bottom of page 4, you have Findings and Recommendations. I think based on how the report has been put together, maybe it makes sense to have findings, opinions and recommendations. So I think that that offers — you know, gives that leeway between — between recommendations and facts. If you have an opinion, I think that's important for folks to understand that.

MR. GILL: Captain, where are you suggesting that that be added?

CAPTAIN WILLIAMSON: That's just sort of the header right there. You see on the bottom of page 4? Because now you're going to go into the findings of fact, and then you have DOH and Board of Water Supply recommendations, and you have Navy recommendations, and you have DLNR recommendations, and then you have, I presume, recommendations from the task force is the flow that we've come up with.

But within that, the recommendations, there are recommendations -- it wasn't real clear to me if they're recommendations to the legislature or the opinion of the stakeholder involved, and I think it reads cleaner if they're opinions, and then at the end of the day, they are recommendations that come out of the task force to the legislature. MR. LAU: If you look on page -- maybe to your point, Mike, on page 8, it does say in the header there for Navy recommendations and opinions combined together. MR. GILL: Okay. All right. So we're talking about a formatting issue for clarity. MS. PERRY: I don't think so. I think what he's saying is that -- Captain is saying that the recommendations that we have currently should be opinions, should be labeled opinions? CAPTAIN WILLIAMSON: Some of them are opinions. MS. PERRY: Because they're not legislative? CAPTAIN WILLIAMSON: Correct. Some of

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them are opinions. Some of them are

findings and recommendations. There are findings that are opinions and there are recommendations.

MR. GILL: I don't object to that as a format if it adds clarity. I'm not sure what we would parse out of the document and label it as an opinion, but I don't mind that as a concept if we find things that are neither recommendations nor findings.

example -- example, one of the -- it's currently a recommendation for the Navy -- in earlier versions, I don't know if it still says Navy, but to graph the data, and then you provide a rationale for that. And I -- so is that a recommendation to the legislature --

MR. GILL: No.

CAPTAIN WILLIAMSON: -- or is that an opinion that you're presenting that, you know --

MR. LAU: Actually, that's a recommendation. For ease of understanding analysis of the data, then it should be graphed out and not just be provided in tabular format and tables.

MR. GILL: But I think Mike makes a good point and I agree. As I read through this, not all of the recommendations in here are recommendations

1 to the legislature. In the earlier draft, we had a 2 bunch of recommendations, and the last section was recommendations to the legislature. So, you know, 3 I'm happy with making that -- making it clear in 4 5 each case where there's a recommendation that who's making the recommendation and to whom the 6 7 recommendation is directed should be clear; right? 8 MR. LAU: Maybe we can --9 MR. GILL: If it's the Board of Water 10 Supply's recommendation that the Navy do something, 11 that doesn't necessarily fall under a 12 recommendation to the legislature and it should be 13 called out separately. I don't know if I would 14 call that an opinion, though, because that's an 15 action item, a recommended action. 16 MR. LAU: Yeah. I think as we go through 17 this, maybe with the opinions versus 18 recommendations, we can note down which one might 19 be an opinion as opposed to recommendation. 20 MR. GILL: I might want to call it 21 comments instead of opinions. 22 CAPTAIN WILLIAMSON: I'm fine with that. 23 I think it's not -- it's in-between. 24 MR. LAU: Yeah. 25 CAPTAIN WILLIAMSON: So when we hand the

1 document over to the legislature, what are they 2 going to act upon? MR. GILL: Right. So we could have --3 for example, if we're going to follow that 4 5 structure of the document, we could have a finding of a fact, and the Board of Water Supply might have 6 7 a comment on it and the Navy might have a different 8 comment on it, and we should collect all those 9 comments and say -- you know, show that there's 10 different comments on this finding or different 11 recommendations. 12 CAPTAIN WILLIAMSON: And then at the end 13 of that comes the recommendations. 14 MR. GILL: Okay. 15 MR. LAU: I guess I can live with the 16 word "comment." 17 MR. GILL: Okay. Yet another task for 18 our wordsmiths in DOH to try to piece this thing 19 together, but I think that's a valid concern. 20 can attempt to do that. Thu doesn't look happy. 21 CAPTAIN WILLIAMSON: I mean, you almost 22 have it in that format already. 23 MR. GILL: It's just headings and 24 subheadings, basically. 25 MS. PERRY: So in the section previous to that, though, in the summary of short-term and long-term results -- effects.

CAPTAIN WILLIAMSON: I don't think that applies. I think it applies under 1, 2, 3 and 4 is where, I think, that construct applies.

MR. CHANG: We went through all this process. Should we call it opinions? Shall we call it comments? We had the same issues you've had because there are so many different things going on in the document. So we can finally agree here that we can go back and fix it up.

MR. GILL: Okay. So we'll try that. In the next draft, we'll have --

MR. LAU: We'll leave it up to you.

MR. GILL: In the next section, there will be findings, comments and recommendations. In each of those recommendations, we should make sure it's clear as to who's making the recommendation and to whom the recommendation is directed because they're not all going to be --

MR. LAU: Navy, Department of Health, legislature, EPA, whoever.

MR. CHANG: So would it be easier to say that we would have recommendations to the Navy, and under that, we would have Board of Water Supply,

Department of Health, Department of Natural 1 2 Resources, then recommendations -- I think --3 MR. GILL: You're going to have to play with it and see what makes sense. 4 5 MR. LAU: Yeah. MR. CHANG: But if you can like that, who 6 7 you want to address the recommendations to, that 8 would help us. MR. GILL: All right. What page are we 9 10 on? 11 CAPTAIN WILLIAMSON: Page 5. 12 MR. GILL: Page 5? 13 MS. PERRY: So everybody is okay with 14 that short-term, long-term fix? 15 MR. LAU: Yeah. Actually, we had some 16 suggestions on maybe about three of the bullets 17 there. 18 MS. PERRY: Oh, the comments? 19 MR. LAU: Comments, recommendations, 20 findings. "DOH and BWS Recommendations." Bottom 21 of page 5, first one says, "Strengthen Hawaii's 22 groundwater protection program," et cetera, and I 23 just wanted to actually add there as kind of a 24 background reason of why do you want to strengthen 25 the protection program? At this time there are 46

such facilities statewide with Red Hill being the largest in the state and the United States.

CAPTAIN WILLIAMSON:

MR. LAU: It's the third bullet from the bottom of page 5. Third bullet from the bottom of page 5.

Where is that?

CAPTAIN WILLIAMSON: You're working on this or you're working on --

MR. LAU: I'm sorry. So look at this version without my markups. I had given my red-lined version too, Mike. So third bullet, yeah, sort of around the middle of page 5 for the public.

MR. KAWATA: Fourth bullet.

MR. LAU: I'm sorry. The fourth bullet, it begins with, "Strengthen Hawaii's groundwater protection program," and my suggestion there was just to add that last sentence just to put it in context.

Then the next bullet, Navy -- begins with, "Navy and Department of Health, Safe Drinking Water Branch. "It's sampling and this is maybe redundant. I think it's covered elsewhere. It's just a sampling, testing, quality assurance and quality control should be developed and adhered to.

This is sampling testing from the various monitoring wells that are used to test for petroleum constituents or other contaminants. In particular, this relates to maintaining as an example, limits of detection, maintaining consistent limits of detection that doesn't vary over time as we've seen with some of the data. So going forward, we're suggesting that this program be held to ensure that all data is good and can be useful to the task force.

CAPTAIN WILLIAMSON: So can I make two comments on this?

MR. LAU: Yeah.

there are 46 such facilities statewide. I sort of -- I saw the 46 and I've seen where the 46 is referenced through the document. I'd like to make a recommendation that you add an appendix that lists the 46 and puts the current status of the 46, and then identifies if those 46 are in the vicinity of a drinking water source or aquifer. By throwing 46 out there, my concern is it's alarmist and they're not -- and some of these tanks are not in use. So I think that cataloguing that and then referencing that in an appendix, I think, will be

| 1  | helpful.  |
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| 2  | MR. GILL: I think that's a great idea.              |
| 3  | Do we have that data?                               |
| 4  | MS. PERRY: Yes.                                     |
| 5  | MR. GILL: We can name them and locate               |
| 6  | them? We're not going to run into some top-secret   |
| 7  | military operation?                                 |
| 8  | CAPTAIN WILLIAMSON: No, no, no.                     |
| 9  | MR. POENTIS: I think we provided that               |
| 10 | information with a map to DOH.                      |
| 11 | MR. GILL: So that suggestion is to                  |
| 12 | incorporate another appendix to identify the        |
| 13 | location and status of the 46 field-constructed     |
| 14 | underground storage tanks?                          |
| 15 | CAPTAIN WILLIAMSON: Yeah, and then you              |
| 16 | can say, you know, we recommend you study that list |
| 17 | and strengthen the program accordingly.             |
| 18 | MR. LAU: I think from there is more of a            |
| 19 | broader study for source water protection           |
| 20 | CAPTAIN WILLIAMSON: Sure.                           |
| 21 | MR. LAU: and protection of the                      |
| 22 | environment. So I'm okay with that change.          |
| 23 | CAPTAIN WILLIAMSON: Okay. The second                |
| 24 | one, the sampling and quality assurance and quality |
| 25 | control, it seems to me and it makes sense to you   |

putting this in here because you haven't seen the Groundwater Protection Plan, but it seems to me that that would be spelled out in the Groundwater Protection Plan.

MR. LAU: Actually, Mike, we're looking at actual quarterly data that's being provided to the Department of Health that we've gotten copies, and we noticed that the limits of detection is, basically, what the laboratory is -- the lowest level that the lab can detect --

CAPTAIN WILLIAMSON: Is capable.

MR. LAU: -- in an item or constituent or chemical, and it seems that that lowest level of detection varies at different -- for different locations.

CAPTAIN WILLIAMSON: Laboratories' capabilities.

MR. LAU: We don't know why, but we think at least for BWS, when we test for contaminants, that we maintain the same level of limits of detection or lowest level that we can detect in a chemical lab, and we keep it consistent until the industry gets — the instrumentation gets more sensitive, and over time that level goes down and down, but we try to create a consistency across all

our wells. So the recommendation here is that for your wells, your monitoring points, that you also do that. We can't do anything about the past data. Past data is past data, but going forward, because this is going to be a long-term effort among ourselves, that the data be very consistent.

MR. POENTIS: The method that we use is unchanged. Those are just qualifiers that are basically the limitations of the laboratory technician at the time of the analysis.

MR. LAU: Yeah. The only thing is for us from the drinking water side perspective, not the UST perspective, a detection is a detection. We want to know if we're going to detect naphthalene at a very low level, even just above the level of detection for the instruments that the lab uses.

Maybe I can let Erwin explain a little bit better where I'm coming from with this. He's our water quality guy.

MR. KAWATA: Well, all our test methods have specific limits of detection that you have to be able to achieve regardless of who it is. It's specified in the method. So if you have specific method and you're using it, that laboratory should be able to perform to the method specification. So

if you have and using a specific method, you shouldn't see variation in your limits of detection, but the data shows differences. It will go up and down. It will change with the same test method. So, again, what happened in the past happened in the past. It's just that if you're using a specific method, that method specifies what your performance and sensitivities should be. laboratory should be able to, essentially, perform at that level, at a specified method, and should be able to report it continuously going forward. MR. POENTIS: Are you speaking of the drinking water sampling results or the groundwater sampling results? MR. KAWATA: Both. Both. MR. POENTIS: Because we use the EPA methods that are specified by the --MR. KAWATA: I'm just reporting to you what we saw in the data. CAPTAIN WILLIAMSON: Okay. But you've got to give him a chance to explain; right? Because we want to understand. MR. POENTIS: So we used a certified lab, an EPA certified laboratory that's done by contract, and the data of that report is that is

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what is received by the laboratory. Sometimes the detection limits for that particular test, on that particular sample, they have qualifiers.

 $$\operatorname{MR.}$$  KAWATA: I'm just reporting to you what I saw.

CAPTAIN WILLIAMSON: Can I ask Steve Linder, are you following this conversation? Can I ask your thought on this from an EPA perspective?

MR. LINDER: I'm sort of following it.

So the question is, essentially, what gets reported in terms of method detection limits?

MR. GILL: I think the overall question,
Steve, is what is the appropriate quality
assurance/quality control procedure that ought to
be followed for sampling both the drinking water
well and the groundwater monitoring wells?

MR. LINDER: Right. Well, a lot of times what I see happen is the detection limits can be significantly different for monitoring wells compared to drinking water wells because if a lab believes that they're going to have significant contamination in a sample, they will dilute that sample in order to essentially not have to go through a process of recalibrating their equipment. So sometimes that dilution will give a higher

detection limit on a monitoring well than a drinking water well.

What I historically typically like to see, especially for drinking water wells where you're interested in the lowest possible detection technically available, is basically shoot for that and the same for any kind of wells that are being used as kind of early detection of movement of contamination. So wells that are typically clean, you want to, basically, not dilute the samples and, basically, use best available technology to get the lowest possible detection limit.

Steve, does it make sense then to have that sort of spelled out in our Groundwater Protection Plan that we're revising right now that says interim revision? Should that be spelled out in that plan that says here's the testing protocol that we expect from you for your groundwater monitoring wells? So we have consistency and so at Board of Water Supply, we're not dancing all over. The same sample methodology is used, and whatever the dilution and the technical aspect s of that are, and then we — and then for our drinking water well, we do exactly as you just stated. Test for

the absolute lowest level of detection because that's where -- you know, we expect that to be clean and we want to make sure that's clean for human consumption.

MR. LINDER: Right. And any kind of, you know, trace amounts, to a certain degree, if you're producing water, you want that kind of early warning that something may be coming.

MR. LAU: And, Steve, this is Ernie from BWS. Because we're talking about a drinking water aquifer resource here, we believe that we should standardize on the sampling and testing protocol, and the limits of detection is just one example. Even, for example, how do you draw the sample from a well, monitor well, do you purge some? Do you pump some? Do you bail some of those wells? I just want to make sure that there's a rational plan that creates consistency of process that allows the data to be compared on an apples—to—apples basis.

CAPTAIN WILLIAMSON: Do you do that across the state on all the monitoring wells?

MR. LAU: We don't do it. We only have jurisdiction on our wells. I'm not sure what the health department requires on other wells across the state. But it's basically -- and I think the

Groundwater Protection Plan is probably a good place to actually explicitly state the process to follow and the QA/QC controls to be there to make sure that the data is of high integrity. So that's basically our point.

MR. GILL: Okay. So --

MR. LINDER: And, Mike, just to kind of clarify a little bit what you repeated what I was trying to say, the monitoring well, the ones where you anticipate there being contamination, you may not be able to get the same detection limits because the labs, typically, if they feel like they're going to have a significant contamination in a sample, they'll want to dilute those samples, but for the drinking water sources and any sentinel well, in those situations, I think you should be able to achieve that technology in terms of detection limits.

CAPTAIN WILLIAMSON: Understood. It's sort of -- understood.

MR. LINDER: Yeah. So there shouldn't be diluted samples in those cases.

CAPTAIN WILLIAMSON: Sort of like measuring a mile with a yard stick versus measuring a mile with a micrometer. You can probably get by

1 with a yard stick with measure a mile. 2 MR. LAU: So like monitor well No. 2 3 where it's always going to be pretty high levels, 4 so no sense setting a detection level pretty low on that. But if you're in an area where --5 CAPTAIN WILLIAMSON: Clean. 6 7 MR. LAU: -- there should be no 8 contaminants there --9 CAPTAIN WILLIAMSON: You want to go to 10 the highest level of detection. Understood. 11 MR. LAU: As an early warning system. 12 MR. GILL: So the point of this bullet 13 here is, however, to make sure everybody's clear on 14 the QA/QC on the methodology because we had some 15 issues early on. I think it was at the Tripler 16 well, whether it was hand-bailed or pumped and 17 things like that. 18 MR. POENTIS: And we followed the 19 quidance document provided by the Department of 20 Health. 21 MR. GILL: So whatever that is, we just 22 need to make sure it's consistent. I can't speak 23 to whatever the guidance document was that you have 24 was. But since we're looking at a pretty high

level of public interest in all of these samples

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that we're taking from this point forward, I want to make sure everybody's on the same page as to how the samples are taken and what the methodology is and the time it takes the lab and the quality control. It's a big deal for the Department of Health and I know for EPA because they force us to do that, and we push those requirements on down to the purveyors of drinking water.

MR. LINDER: One other thing to mention,
I think, also is just the whole lab selection
process because different commercial labs are
capable of different detection limits for
essentially the same method given their procedures
and equipment they have. So I think that's also
something that should also be covered in the plan
in terms of essentially what is -- you know, is
there going to be any process involved in selecting
a lab based on their capability.

MR. GILL: So, Steve, from the EPA's perspective, do you want to add that as a note to this bullet that the sampling and testing quality assurance program should include lab selection?

MR. LINDER: I think that would be -- I think that would be good because then it's pretty clear what the criteria is and how it's being done.

I guess the Navy, is that something that, you know, you could add to this into your plan?

MR. POENTIS: My understanding is, and correct me if I'm wrong, that the laboratory, especially for drinking water, has to be an EPA certified laboratory. So all of our contracted laboratories meet this criteria. Otherwise, they wouldn't meet the requirement of the solicitation. Using an EPA --

MR. LINDER: Well, you know, I've been involved in past situations involving all certified labs, all labs that didn't have any kind of problems per se, but when we went out and did a lab survey to figure out kind of who was capable of what detection limits, certain labs were better than others in terms of their technology they have, equipment they have and their ability. So I think that should be something everybody should at least be aware of and something, at least in my past experience, has been a concern on water purveyors trying to make sure that, you know, the highest quality labs were chosen even though they all met essentially certifications.

CAPTAIN WILLIAMSON: So, Steve, Mike Williamson here. Obviously, we've got to comply

with the Federal Acquisition Regulation, the FAR.

MR. LINDER: Correct.

CAPTAIN WILLIAMSON: And the FAR says we need to put criteria on the street and draw competition. So if we are putting in our RFPs, the criteria is an EPA-certified lab, and the idea is there are multiple labs that are certified, that that's not good enough? We need to -- because, I mean, within our regulations, that could pose a problem; right? We need to drive competition?

MR. LINDER: Right. You could add to your criteria in the future that, basically, part of it is also providing that particular lab's method detection limits, what they expect to achieve in any kind of demonstration they're able to achieve that. I've been involved in situations where some labs have abilities that go down much lower than others in terms of detection limits.

CAPTAIN WILLIAMSON: Got it. Okay

MR. LINDER: And I've been involved in situations where responsible parties have wanted to negotiate high detection limits in order to be able to say things are nondetected --

MR. LAU: I don't think the Navy wants to do that.

MR. LINDER: The goal is to see,
essentially, clean samples, but it's typically in a
water purveyor's best interest to even find trace
amounts of contamination because it gives them
indication of potential future movement of
contaminants.

CAPTAIN WILLIAMSON: Okay. So if we spell this out in the -- my recommendation again, if we spell this out in the Groundwater Protection Plan and then we could use the requirements out of the Groundwater Protection Plan as a basis for our solicitation, I think that we can achieve this objective and satisfy all concerned.

MR. GILL: Erwin?

MR. KAWATA: Mike, if I may, to Steve's point, we have also found the same experience where labs have been certified, but we find different levels of performance. So, yes, we use the same criteria Aaron does that we say the lab must be certified for drinking water, but I have also an additional set of performance criteria that I put in my specifications that we actually put out for the bidding process.

CAPTAIN WILLIAMSON: Sure. That makes sense.

1 MR. KAWATA: I just wanted to add that. 2 So I do have some myself and we put it out there. MR. GILL: So that was discussion on the 3 red-lined edition in the Board of Water Supply's 4 5 version to add some clarification or additional detail on the sampling and testing, quality 6 7 assurance/quality control plan that needs to be 8 developed. We had a good discussion on that. 9 think maybe staff has enough to go with the Navy's 10 recommendation that these things be incorporated 11 into the --12 MS. PERRY: Groundwater Protection. 13 MR. GILL: -- Groundwater --What's the name of it? 14 15 MS. PERRY: Protection Plan. 16 MR. GILL: Protection Plan. Okay. 17 MR. CHANG: I might suggest that maybe 18 true chemists get involved in this and what can be 19 done because --20 CAPTAIN WILLIAMSON: 21 MR. CHANG: -- we're at that higher level 22 and getting into the weeds of actual chemistry, I'm 23 not saying Erwin is very expert at this, but we 24 don't necessarily have the chemists from the Navy

side or maybe from the other agencies. So that

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might be some ongoing discussions as we go back and look at the Groundwater Protection Plan and sampling.

MR. GILL: So suffice it to say for the benefit of the audience and those of us who are nonchemists and technicians in the room, when we're dealing with such minute traces of chemicals, it's really important to have a consistent quality assurance/quality control methodology to assure that when we're finding a few parts per million or billion or trillion, that it's -- you know, that the data is usable, and that there's a lot of science and methodology that must be adhered to in order to get usable data at these trace levels.

CAPTAIN WILLIAMSON: Can I -- because

I've lost track of where we were in the document,

can we go back just for a quick second? "Findings

of Fact, short-term Effects." You went past it.

Go down a little bit. Keep going down a little

bit.

MS. KWAN: This is the long-term effects?

MR. POENTIS: Short-term.

CAPTAIN WILLIAMSON: I'm sorry.

Short-term. I saw "term." Go back up to

"short-term effects." Sorry. There you go.

Just trying to understand. A little confusing there, that first -- it looks like the top part of that first paragraph, it says,

"Groundwater monitoring in well 2, located near tank 5, showed an increase in total petroleum hydrocarbons TPH(d) of up to 5,000 parts per billion, 500 parts billion higher than the site specific risk based EAL approved by DOH and -- and upwards of 50 times DOH EAL 500 --"

So I'm confused over that terminology there. So my suggestion is it's a finding of fact that 500 parts per billion was found there, and it's 500 over the site specific EAL. That's a fact. I don't know about that second part. I would recommend striking that.

MR. GILL: Okay. Let's just take that comment. I think it was staff's attempt to say something.

MR. CHANG: There were two different things in there, and we tried to combine it and we gave up and said we'll throw it out there and see if anybody figures it out. So, yeah, there's a site specific 500 PPB action level, and if it exceeds that, then there is an action plan by Navy to increase monitoring. And what we found is in

January when it hit 5,000, they went to weekly 1 2 monitoring, and the next week, it dropped down to 3,000. So it's a blip on the screen there, but it 3 showed there was a possible response from the 4 5 release. MR. GILL: But it looks like that 6 7 sentence needs to be broken into two bits. 8 CAPTAIN WILLIAMSON: I'm fine with 9 leaving 5,000 up there. I'd recommend striking the 10 50 times because that's redundant. That's my view. I think that's actually a drinking water EAL; 11 12 right? 13 MR. CHANG: It's a contamination --CAPTAIN WILLIAMSON: It's not a site 14 15 specific EAL? 16 MR. CHANG: That's correct. It's not a 17 site specific. 18 CAPTAIN WILLIAMSON: And we're working 19 under the premise of site specific for these 20 watering wells. We've agreed to under our 21 groundwater monitoring plan. 22 MR. LAU: Steve, there's also a reference 23 in Appendix C to the SSB -- SSRBL. So you might 24 want to look there to see if you want to make some

clarification there and make a reference pointing

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| 1  | back to it.   |
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| 2  | CAPTAIN WILLIAMSON: I think spelling out            |
| 3  | the site specific in the appendix                   |
| 4  | MR. LAU: Explaining what that is. It's              |
| 5  | a little confusing right now.                       |
| 6  | MR. GILL: So we'll take that general                |
| 7  | comment that that section needs to be clarified.    |
| 8  | We'll take another crack at it and refer to, if     |
| 9  | necessary, to attachments and charts because it is  |
| 10 | hard to follow will from a lay perspective. So      |
| 11 | we're on to page 6? Is that where we are?           |
| 12 | MS. PERRY: Yes.                                     |
| 13 | MR. GILL: Thu or Roxanne, do you want               |
| 14 | to  |
| 15 | MS. PERRY: So last meeting, Board of                |
| 16 | Water Supply submitted some additional              |
| 17 | recommendations that we took verbatim cut and paste |
| 18 | to this section which we will rename "Further       |
| 19 | Comments by BWS."                                   |
| 20 | MR. LAU: "BWS Comments."                            |
| 21 | MS. PERRY: Any objections to part of                |
| 22 | that?   |
| 23 | CAPTAIN WILLIAMSON: My only comment is I            |
| 24 | think it would be helpful if it's in a consistent   |
| 25 | format. So we've got I mean, you've got             |

1 additional layers in here. I understand. 2 MR. LAU: She just cut and paste. we're okay, Thu, if you want to reformat to be more 3 consistent with the rest of the document, but 4 5 please try to keep the content similar, but do your best. 6 7 MS. PERRY: Navy comments were from --8 MR. GILL: Are you on the section where 9 it now says, "Navy Recommendations and Opinions?" 10 MS. PERRY: Yes. I've already striked 11 that. 12 CAPTAIN WILLIAMSON: How about Navy 13 Comments? Navy Comments? And so we don't have 14 anything at the end of one in terms of task force 15 recommendations coming on this. Should there be 16 task force recommendations that come out of --17 MR. GILL: So by that, you mean 18 recommendations for -- that are agreed upon by all 19 members of the task force? 20 CAPTAIN WILLIAMSON: (Nodding head.) 21 MR. GILL: I don't know that we have 22 recommendations that are specific that are agreed 23 to. 24 MS. PERRY: I think we all agree there 25 should be additional groundwater wells.

CAPTAIN WILLIAMSON: We agree, I think, that additional -- that additional groundwater monitoring wells should be installed based on the further assessment of datums and all the work we're doing. So we're not saying we don't need to put more in, but I think we can find some common ground that additional groundwater monitoring wells be considered based on the science -- based on science. I mean, you can change the wording around on that a little bit.

MR. LAU: I think we're fine with that.

There may be some references in other parts of the report about additional wells. I thought there was another section and that might be under the long-term.

you got long-term. So to wrap up No. 1, I'm just thinking of a cleaner document and say right there, here's where the task force agrees and everything else can be left to, you know, we either don't agree or we somewhat agree, but here's no kidding what the legislature can act on because we agree on this.

MR. LAU: It could be simply stated "task force recommendations."

1 CAPTAIN WILLIAMSON: It could be, but the 2 concept with the underlying premise would be we all 3 agree on that. Task force recommendations 4 MR. LAU: 5 where we agree. MR. GILL: So let's -- for staff's 6 7 purposes, let's go ahead and format the document in 8 that way so that under each of the sections that 9 the legislature has asked us to respond to, we 10 would have, in effect, consensus recommendations. 11 They may be more generally stated than the details 12 of any individual agency recommendation, but if we 13 can all agree we've got to do more monitoring 14 wells, let's just lay that out in simple form. 15 MR. LAU: And if we don't have agreement, 16 that can be captured under DOH recommendations --17 CAPTAIN WILLIAMSON: Exactly. 18 MR. LAU: -- or comments. 19 MR. GILL: I think that's a good 20 suggestion. So staff will do that. 21 Does that get us on to the next page? 22 I'm getting my exercise switching glasses. 23 MR. LAU: Just go to bifocals. MS. PERRY: No 2, response strategies to 24 25 mitigate the effects of future releases at Red

Hill. 1 2 MR. GILL: Okay. So this is point 2 of the legislative mandate that we have, and we 3 have -- on the circulated draft, we're pretty much 4 5 on page 7; right? MS. PERRY: Yes. 6 7 MR. GILL: Findings of fact regarding the 8 response strategies to mitigate effects of future 9 leaks. 10 MR. POENTIS: Gary, can we go back a little bit? I'm really sorry. 11 12 MR. GILL: How far back do you want to 13 qo? 14 MR. POENTIS: It talks about the 15 long-term effects, the Department of Health and 16 Board of Water Supply recommendations. It's the 17 second-to-the-last bullet. 18 MR. GILL: Okay. "Navy should mitigate 19 existing contamination, " that bullet? 20 MR. POENTIS: Right. And I want to have 21 a discussion to make the argument that, you know, 22 should mitigate where it's appropriate. I mean, if 23 the existing monitoring system, whatever that comes 24 out to be in the future, doesn't show impacts to

drinking water sources, you know, we wouldn't

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advocate, as in the past, mitigate contamination where it's not necessary.

CAPTAIN WILLIAMSON: So if it's going to attenuate or it's not -- I mean, it's not -- if it will naturally degrade or attenuate over time and not impact the groundwater source, should we spend millions of taxpayer dollars going and trying to remediate?

MR. GILL: Okay. I get your point. A natural attenuation is an approved mitigation strategy. If you want to reference that, you know, that would be appropriate to me. I mean --

CAPTAIN WILLIAMSON: Well, you all put that comment in. So is your intent that we could actively pursue mitigation or --

I mean, just again making it clear because a layman won't know that. The layperson won't know that.

 $$\operatorname{MR.}$  LAU: I guess we could call this a comment for us then.

MR. CHANG: So in the first bullet, we do make the general reference to the maximum extent practical, which applies to the situations that we will have to evaluate the ability or, in most of these recommendations, it really comes down to the

1 fact that is it practical to pursue? So would it 2 be sufficient that we already have captured it in the first bullet? 3 CAPTAIN WILLIAMSON: Maybe we just ask is 4 5 that redundant? Again, does that confuse the reader? 6 7 MR. LAU: Well, I think we -- if we use 8 the word "comments," then we separate things that 9 are comments; that this is our opinion or comment 10 on this. I'm a little nervous about saying where 11 appropriate that we're already starting to qualify 12 things without actually knowing what the extent and 13 nature of the contamination is. It seems like 14 that's why the -- and I consistently pushed 15 characterization determining what's there, and then 16 we can figure out what to do. 17 CAPTAIN WILLIAMSON: And I think we 18 agree. We agree completely on that front. Maybe 19 said in another way to address Aaron's concern and 20 our concern --21 MR. LAU: Think about how to rephrase it. 22 CAPTAIN WILLIAMSON: How to rephrase it 23 to achieve that objective.

principle of you have a pristine groundwater

MR. LAU: I guess it comes back to the

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resource. Do you allow the resource to stay contaminated because it's not going to migrate or the data or the models don't show migration toward a drinking water source, but the resources are compromised in that location? It's sort of in principle, what do you do here? You know, Mike, I think from our point of view is prevention is always better than reaction. If you have a pristine resource, don't let it get contaminated to begin with.

CAPTAIN WILLIAMSON: So along those lines and my understanding is that Groundwater Protection Plan is put in place. So we put monitoring wells so we see if something is moving in the direction of our pristine drinking — our pristine sources, and that there are action levels that if we — if we see detection — if we detect at levels, we then take action, and that action would be to pump or treat; it would be to bioremediate; it would be to —

MR. LAU: Vapor extraction.

captain williamson: Exactly. Whatever it is, but I think that that's sort of the intent of the groundwater monitoring plan as a layer of defense for our drinking water sources and other

pristine areas of the aquifer.

MR. LAU: You know, we're probably going to have to come out with a protection plan or remediation plan at some point once we know the extent of the contamination and movement. The drinking water wells being one component, definitely from our perspective as a stakeholder, representing our community for drinking water. Effects of our drinking water wells is primary. But do you allow the contamination to exist there and possibly make it at some point into the environment with the groundwater flow? So I don't know.

CAPTAIN WILLIAMSON: Should we ask Steve?

MR. LAU: I think we should -- I'm okay
with letting the Department of Health take this and
see how they can wordsmith it to address it -they've heard your concerns; they've heard my
concerns -- and come out with a revised version.

CAPTAIN WILLIAMSON: Fair enough.

MR. GILL: I think that one thing that
Steve Chang suggested is you can just take the
maximum extent practicable language and insert it
in there. I don't think anybody in the Board of
Water Supply wants to spend millions of dollars

going after one part per trillion if it's going to decay in six months and not go anywhere and hurt anything.

CAPTAIN WILLIAMSON: They understand that. We understand that, but the readers might not understand that. So if we can put something like that in, that would be -- I'm fine with that.

MR. LAU: I think what you're asking from Mike is a little bit of a qualifier there in that recommendation. So we're open to DOH coming up with something.

MR. GILL: Okay. Let's move on to where we were which is, I think, page 6 or 7 on the circulated draft. Roxanne? I think it's page 7, Regular Maintenance, Finding of Facts, Regular Maintenance. It looks like Board of Water Supply had some suggestions in their red-lined version here.

Ernie, do you want to go over those?

MR. LAU: Yeah, just real quickly. After
that first introductory paragraph, it starts, "Red
Hill facility consists of field constructed USTs."

It mentions something about currently deferred from other federal or state regs. I know in our
presentations, we use a list, I think, of 10

1 different items for clarity for the reader here. 2 Maybe a list of that 10 items and indicate which ones are deferred for field constructed --3 MR. GILL: That's one of our standard 4 5 PowerPoint slides. So you're just suggesting to incorporate that? 6 7 MR. LAU: Just for clarity so the reader can understand, well, what was deferred. 8 9 MR. POENTIS: And I'm glad you said that 10 because that is an important distinction. I don't 11 think we're deferred from the rules. We still have 12 to comply, but there are certain aspects of the 13 rule that are not applicable. 14 MR. LAU: Not all 10. 15 MR. POENTIS: Correct. 16 MR. KAWATA: If we put it in the 17 appendix, it summarizes the regulations covering --18 MR. GILL: The PowerPoint slide and the 19 appendix to reference it. That's fine. Okay. 20 Ernie, you had more? 21 MR. LAU: Okay. Going down and skip the 22 second paragraph, the third paragraph, "Recent 23 maintenance cycles of --" 24 I think this was put in by the health 25 department. API procedure developed by the Navy is "According to the Navy, the goal of the tank maintenance is to have at least .1 inches of steel plate remaining at the end of the 20-year operational cycle," our suggestion there is the original steel plate installed in 1940 to '43 were .5 inches and .25 inches thick for the tank bottom and walls, including the top perspectively. Just to say, okay, it's .1 inches, but what was it when it was originally installed, and I think it was either a half an inch or a quarter inch.

"Then the last sentence of that paragraph,

"The required thickness was restored through

additional weld plates -- weld patch plating within

tank 5," thinning of the steel plate over time was

due to corrosion. Just a simple statement.

CAPTAIN WILLIAMSON: Okay. Couple concerns with this. "According to the Navy, the goal of tank maintenance is to have at least .1 inches of steel plate remaining at the end of the 20-year operational cycle." So that's not to say it was .1 inches today. It's to say that based on the corrosion, degradation occurs, and the corrosion rate, that it will thin to that point over the course of the next 20 years. I think that

| 1  | the original plate thickness is .25 inches. Fine.   |
|----|---|
| 2  | MR. LAU: That's on the walls and the                |
| 3  | dome at the top?                                    |
| 4  | CAPTAIN WILLIAMSON: Yes.                            |
| 5  | MR. LAU: But the bottom is .5?                      |
| 6  | CAPTAIN WILLIAMSON: I don't know.                   |
| 7  | LT. COMMANDER LOVGREN: .25 all the way              |
| 8  | around.   |
| 9  | CAPTAIN WILLIAMSON: It's .25 all the way            |
| 10 | around.   |
| 11 | MR. LAU: Oh, all the way around? Even               |
| 12 | the bottom is .25?                                  |
| 13 | MR. KAWATA: I thought the bottom is                 |
| 14 | thicker.  |
| 15 | LT. COMMANDER LOVGREN: Yes. We got                  |
| 16 | historical documents that do relate that, but,      |
| 17 | again, what we're saying is the .5 that you see is  |
| 18 | there's a reference to another document, and I want |
| 19 | to find the original document before I can approve  |
| 20 | that. Does that make sense?                         |
| 21 | CAPTAIN WILLIAMSON: We just drilled some            |
| 22 | holes in the tank                                   |
| 23 | LT. COMMANDER LOVGREN: We can even have             |
| 24 | further proof that                                  |
| 25 | CAPTAIN WILLIAMSON: that you're going               |

1 to go out and take a look at. 2 LT. COMMANDER LOVGREN: It's at least the a minimum of a .25. 3 MR. LAU: To be factual, minimum .25? 4 5 LT. COMMANDER LOVGREN: Correct. MR. GILL: So we can't confirm -- just 6 7 point of the record here, the Navy is not able to 8 confirm right now that the bottom of the tanks 9 originally installed were half-inch steel. CAPTAIN WILLIAMSON: I don't know. 10 11 know the walls and -- the walls are quarter inch 12 steel. I know that for a fact. 13 MR. GILL: If you want this 14 clarification, Ernie, can we just say --15 MR. LAU: .25. 16 MR. GILL: -- at least a quarter inch was 17 the original construction or do you just want to 18 say --19 CAPTAIN WILLIAMSON: So from a -- as an 20 engineer, my concern would be the reader would say, 21 "Hey, this thing has thinned out to .1 inches over 22 70 years and it started at half an inch." It's a 23 very different scenario than starting at a quarter 24 inch and thinning down over the course of the next 25 20 years down to .1 inches. So there's a very --

there's a very different understanding for the reader if you read this together.

Maybe this is better put together in the history piece; right? Because you're going back to the '40 to '43. You're talking about the height of the tank. You're talking about the -- because -- and there's more to the story here because it's quarter inch steel that is encased in two to four feet of concrete, which we don't refer to in this document. And I think that somewhere in this document, we speak to the point where our methodologies are all reactionary, and we only know when something has gotten into the environment, which isn't necessarily the case. It can be the case, but is it always the case? It could be caught inside that concrete encasement.

So I think that maybe this is best as we characterize the tanks in the history piece would be my recommendation. Because, again, my whole goal here is to make sure we don't confuse readers and somebody goes on, "I'm a mechanical engineer.

I'm a member of the public. If it's thinning at, you know, from half inch to .1 inches over the course of the first 60 years, then we have a problem — we have a serious problem in the rest of

our tanks." That's my concern. I just don't want to convey --

MR. LAU: Mike, for my benefit for clarification, it seems like your API 653 is really focused on the steel shell in the tank and --

CAPTAIN WILLIAMSON: It is.

MR. LAU: -- it appears that it's looks at trying to maintain a minimum wall thickness at anytime of .1 inches, depending on the rate of corrosion. So your tank extension is adding additional steel plate for material thickness that in time will also corrode because there's corrosion that's going on.

CAPTAIN WILLIAMSON: May.

MR. LAU: By the time it reaches .1 inches, which will trigger another maintenance requirement at that location, it will be .1 inches thick as opposed to the original .25. So it's really your maintenance seems to be focused on the steel as opposed to maintaining the concrete behind it.

CAPTAIN WILLIAMSON: Correct.

MR. LAU: So I guess moving into the appendix sort of takes away some main points of what kind of maintenance actively that you're doing

right now that's in the main document as opposed to being buried in the appendix. So I think -- I wanted to put in perspective where the original tank was quarter-inch-thick steel plate, your maintenance is looking at trying to maintain a minimum wall thickness by .1 inches by patching in time to extend the life at that location given an estimator or calculated rate of corrosion on the tank.

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MR. LINDER: This is Steve Linder. You know, I've got kind of one observation on this. think the thing is the corrosion rate per se, I mean, it's not tremendously predictable. It's not like the walls of the tanks are uniformly corroding. At least that's not, at least, what I'm hearing in terms of conceptually here. It's more there's probably pitting and other corrosion, and there are places or areas where corrosion was severe enough that the wall thickness was less than a 10th of an inch, which triggered the need for adding these additional plates to, essentially, extend the life of the tank.

So I don't want to -- we shouldn't leave people with the impression that we can kind of predict the overall rate of corrosion because I'm

not sure if we can.

CAPTAIN WILLIAMSON: No. You're right.

Again, the calculation is purely a straight line calculation based on what we started with, where we are today over the number of years. So it's a very basic — and that corrosion could have taken place as accelerated corrosion over a period of 15 years and it sort of stalled out from there. It can move in that direction. So I just think that, you know, getting too detailed in this area here could be misleading, and it clearly is an area that we need to — that we're going to be looking at as part of our ongoing coordinated effort with you and DOH in December.

So, you know, if we want to say, hey, you know, the original tanks were .25 inches. You know, the API 653 process looks to provide -- to address areas that might --

So maybe rewording this a little bit more --

MR. LAU: Maybe even the ordering of -maybe the paragraph can begin with, "The original
tanks were installed this. The Navy has
implemented and modified an API 653 process and
this is what the process is."

CAPTAIN WILLIAMSON: Bingo. I'm good with that.

MR. GILL: So I think that's been a good discussion. I hope staff has enough to go on. We will accept the intent of the Board of Water Supply's additions here and we'll rework the paragraph for clarity, and we can flag that one.

MR. LINDER: This is Steve Linder. I've got one other point related to this I'd like to make.

MR. GILL: Okay. Steve Linder, go ahead.

MR. LINDER: Some of the historic documents the Navy provided refer to these tanks as concrete tanks with steel liners, and in other places, they're steel tanks surrounded by concrete. I think what we have realistically here is a composite tank which is a combination of concrete rebar with a steel inner shell. So I don't know how the report plans to characterize it, what we want to put in there as the facts in terms of construction here, calling this a composite tank or calling it a steel tank or a concrete tank.

MR. GILL: Is there a reference specifically in the document, Steve, that you're looking too?

MR. LINDER: Well, I don't have them all open in front of me. Bob Pallerino has been reviewing the document extensively, and that is one thing he pointed out to me was some inconsistencies in some of the historic documents in terms of the description of the tank.

MR. GILL: But for the point of this task force report, and I'm not sure I'm reading through here how we describe the tank, but if you'd like to have consistency, can I suggest concrete-lined steel tank or concrete-reinforced steel tank is how we should refer to it or does it matter? I mean, it's a steel tank with a concrete -- three feet of concrete between the steel and the bedrock.

CAPTAIN WILLIAMSON: No. I think Steve brings up a good point because, again, you want to --

MR. LINDER: What we're dealing with here is a composite tank made up of concrete rebar with a steel shell internal lining. But, you know, again, I'm interested to hear what the Navy -- how they think it's best to characterize it.

MR. GILL: Reinforced concrete tank with steel lining.

CAPTAIN WILLIAMSON: Let me get the

experts to pull the same documents that Mr. Pallerino is looking at and let's -- let's put our eyes on and look at some of the source documents and see if we can come up with a thought. I think it's important and, sort of to Ernie's point at the front end of this, let's describe to the public the tank, the size, the orientation, you know, what was originally -- the original intent of the construction, how it was originally intended to construct and hold fuel and describe those different layers, and I think that will help down through the document as well. Why don't we take a stab at putting together a draft of that and sending it to DOH --MR. GILL: Okay. Fair enough. So we'll ask the Navy to submit as soon as they can the appropriate description as to how they would like the construction of these tanks to be --CAPTAIN WILLIAMSON: Well, the guys that built the tanks, what was their concept, their engineering concept in putting these together?

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MR. LAU: Mike, the other aspect is I

CAPTAIN WILLIAMSON: We have. 1 2 MR. LAU: -- which is a critical 3 component of this facility. You're looking for 4 doing the electromagnetics and trying to look at 5 corrosion of the pipelines. CAPTAIN WILLIAMSON: Corrosion control, 6 7 yes. 8 MR. LAU: Protecting the pipeline from 9 water coming out of the tank walls and corroding 10 the pipe from the outside. I'm going to have to 11 MR. GILL: Okay. 12 exercise chair's discretion here. We've got about 13 a half hour left, and we're on page 7 of a 17-, 14 18-page document. So I want to see if we can't 15 move quickly through here. 16 Board of Water Supply has only a couple 17 more pages, I think, of significant red line 18 additions to be proposed. Let me just pause and 19 make sure I'm being fair in allocation of time. 20 Did the Navy come today with any other significant 21 suggestions for changes? 22 CAPTAIN WILLIAMSON: I've got lots of 23 My biggest concern with the document is 24 sort of the No. 4 areas. I'd like to see if we can

preserve some time to talk through No. 4. I think

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1 there's some wording that can be done to make that 2 more clean, a little cleaner, but right now as it's written, I've got some serious concerns there. 3 So if we can dedicate some time, 10 minutes or so, to 4 5 talk through 4, I'd appreciate that. MR. GILL: Okay. Let's see if we can get 6 7 there quickly. So assuming you don't have anything 8 really pending between now and section 4 of the 9 report --10 MS. PERRY: Captain, you said you had a 11 problem with the next paragraph? 12 CAPTAIN WILLIAMSON: No. My issues 13 are --14 MS. PERRY: In terms of the alarm 15 entering the environment? No alarm until contamination enters the environment? 16 17 CAPTAIN WILLIAMSON: I think the 18 description of the tank helps address that. 19 reading this, you have the impression that you have 20 a steel liner, then you have the environment, and 21 we have more than that. So I think as we --22 MR. CHANG: As we craft that. 23 CAPTAIN WILLIAMSON: As we craft that, it 24 addresses that. 25 MR. GILL: Okay. So can we then go to

page -- are we on 8? Board of Water Supply has additional recommendations on the site assessment and containment plans?

MR. POENTIS: Contingency.

MR. GILL: That's the bottom of page 7 on the circulated version, page 8 of the Board of Water Supply.

MR. LAU: Actually, it's on page 8 of both documents.

MR. GILL: Starting on page 7.

MR. LAU: It starts on page 7, but page 8 has -- it's a section entitled "DOH and BWS Recommendations." First bullet begins with the statement, "BWS and the public to support proposed EPA regulatory changes." This is the changes to 40 CFR Parts 280 and 281, and I just added some clarification there. The change will regulate field-constructed USTs and require compliance with existing release detection spill and overflow control and cathodic corrosion protection requirements.

And then the second bullet was this is -
I put this under DOH and BWS recommendations, but

it's really maybe BWS recommending to the

legislature to issue a resolution encouraging the

President to pass these proposed changes out of the Office of Management Budget as originally published, which was originally published back in 2011.

MR. GILL: Okay. So we can accept that bullet as a BWS recommendation, and maybe we need to break down that heading so it's clear what's BWS and what's Department of Health.

MR. LAU: Of course. Unless the Department of Health agrees with us.

CAPTAIN WILLIAMSON: That and a box of cookies and a cup of coffee.

MR. CHANG: The issue is that it is at OMB for review, and EPA is already noted that it may change. It may pass with the removal of deferrals. It's still unclear as this point in time. So we have to be aware that something could happen to it.

MR. GILL: But at least for the next draft, we can incorporate that as an additional suggestion from the Board of Water Supply and just reflect it accordingly.

MR. LAU: And prior to that, under site assessment and contingency plan just above there, we just made the reference again to Halawa deep

monitor well that's being monitored. And also suggest that a TAMC monitor — the Tripler's — the Army's TAMC monitor well No. 2 might serve as a sentinel well, monitoring well for any movement toward our Moanalua wells. And I think those are the major —

MR. GILL: Okay. For clarification,
we'll accept that for staff and work on the final
draft. So let me just jump ahead. If people don't
have -- just in interest of time, if there's no
substantive suggestions to our circulated draft on
pages 9, 10 and 11, which I don't see the Board of
Water Supply has any --

MR. LAU: Only on page 12.

MR. GILL: Page 12. Does the Navy have anything in the next couple of pages that you wanted to flag for us?

CAPTAIN WILLIAMSON: So, again, we don't have consolidated recommendations coming out of 3. So I don't know if we have any or not, but, again, capture that under formatting piece.

MR. GILL: Okay. So, staff, be aware that in our new formatting scheme, if we have recommendations within here that everybody can agree to, let's put them under the subhead of Task

Force Recommendations or Unanimously Agreed to Recommendations or something like that. So we'll take that as a formatting suggestion.

And then, Ernie, I think we're on your page 12. You have a couple more red-lined items to suggest, and then we'll take the Navy's suggestions on point No. 4, Implications of Closing Red Hill.

MR. LAU: Okay. Looking at page 12, this is actually just above the Navy recommendations and opinions. BWS recommendations, one suggestion is provide additional resources to DOH to adequately monitor, study and regulate this facility. And the second bullet actually is more probably a comment. Given the age and condition of the facility with its historic history of leaks dating back to at least 1947 to the present, we would like the Navy to disclose all studies or reports connected, including possible catastrophic release scenarios looked at, for example, seismic related or accidents within the lower access tunnel, et cetera.

The first bullet was to really point out later on, I think, the DOH -- the legislative recommendations to BWS and DOH includes the change to the emergency response revolving fund that

receives funding from a tax of 5 percent. You want to have that changed to 15 percent. That's something that we didn't actually -- we're not a party to that recommendation to increase the tax, but we do support the concept that you need more resources to help do your job here, and this Red Hill situation is a very complicated issue that's going to exist for probably a number of years that you need more resources. How the legislature provides those resources is their call, but we're advocating that, yes, we agree with you that you need the resources. We're not necessarily advocating that it's through the tax. So I would like to make that very clear.

CAPTAIN WILLIAMSON: I had as a taxpayer, not as a guy wearing a uniform, but as an expender of taxpayer resources, as a steward of the taxpayer resources, yeah, I was thinking the same thing because we make that recommendation at the tail end. Well, the task force makes that recommendation at the tail end, but there's no reference to the requirement in the document. So I think that, you know, from where I sit, my recommendation would be, you know, the DOH should say, hey, we know that by implementing these

recommendations, that additional resources in terms of man years, in terms of additional staffing, you know, is required and that staffing is X number of work years or whatever, and 'cause I have no idea if five cents on the barrel far exceeds your requirement or barely covers your requirement because you're just all over the map on me on that one. So that's just from citizen --

 $$\operatorname{MR.}$  LAU: And the legislature can decide to use general funds as opposed to tax --

CAPTAIN WILLIAMSON: Sure

MR. GILL: I take it your point is just to opine that adequate resources ought to be provided to the Department of Health to continue this work; right? And then we can just leave it like that.

MR. LAU: I think you need to be a little bit more explicit, Mike. Additional positions, funds for consultant studies, analysis, laboratory analysis costs. You need to at least kind of bound it somehow.

MR. LAU: Define it. Mike and I, we're on the same page there for a change.

CAPTAIN WILLIAMSON: We're on the same 1 2 page on a lot of stuff, Ernie. MR. GILL: So, Ernie, you have a few more 3 red-lined versions. Then I'm going to ask the Navy 4 5 to make their objections. MR. LAU: Then under recommendations from 6 7 BWS and DOH, we just added some things on the first 8 bullet, field constructed tanks, construction and operational history, past leaks, et cetera. 9 10 Then I made the second bullet on the tax 11 issue that is, clearly, DOH recommendation only. 12 MR. GILL: Yes. 13 MR. LAU: Then I added another bullet. 14 "Legislature issue a resolution continuing the work 15 of the task force until DOH is satisfied --16 satisfied with progress and outcome on issues 17 related to the facility and will recommend 18 suspension of task force." 19 I know at one time we talked about asking 20 the legislature to extend the task force, but I 21 didn't see a recommendation in this report. 22 MR. GILL: Okay. 23 MR. LAU: I think that's it for me. 24 MR. GILL: Thank you for reading through 25 carefully and making additional recommendations.

1 Staff will try and incorporate those as we've 2 discussed, including the additional and changing and formatting for clarity. 3 So, Captain Mike, you have some 4 5 suggestions on the same pages here? CAPTAIN WILLIAMSON: So No. 4, findings 6 7 of fact, Roger, first paragraph, no comments. 8 Roger, second paragraph, no comments. 9 paragraph, I think those are opinions. I don't see 10 those as facts. So Department of Health does not have information regarding implication. So, you 11 12 know, that's fine. 13 MR. GILL: That's an artifact of an early So let's take a look at that. 14 draft. 15 CAPTAIN WILLIAMSON: Going down and so I 16 mean, we've got that Navy views preceding sentence. 17 So that's -- you know, our defense mechanism was 18 going up, and so however you want to couch that, 19 you know, if it's an opinion, it's an opinion. 20 can agree or disagree with that. MR. GILL: It clearly needs to be 21 22 reworked. 23 CAPTAIN WILLIAMSON: The DOH and BWS 24 recommendation earlier in the document speaks to a 25 recommendation of legislature to seek secondary

protection to the extent practicable. I mean, there's that language earlier in the document. I don't know if this first recommendation here should only exist on the condition that the aging facility be upgraded with secondary containment. So I thought that --

There is reference earlier in the document where the language isn't that strong to the legislature. So I don't know if that -- we need to take a look at that. It's not consistent with what's in the document. But, again, if it's your opinion, then, you know, that's fine, but just looking at that for consistency purposes.

Then, Gary, the second bullet, again, your opinion, "Navy should have facility-wide secondary containment by December 31st, 2024." I know the purpose of that is to help us get the funds. I know that's not physically possible under the current construct. We just can't move fuel around fast enough to do that and get in the tanks and do what needs to be done. And there was a broader discussion among the task force that we should put something in there that is practicable. I believe and I thought the task force agreed that that's not practicable to have the work done in 10

years.

So might I suggest that we replace this with adopt a two-step process aggressively pursuing technological solutions that allow us to improve the containment of the facility, and then once upon the defecation of that, the technology and a feasible and practicable solution, then take that second step, a trigger that causes us to come back together and set the time line, set the expectation for when that is implemented, I think, would be a more productive way of --

MR. GILL: Okay. But you don't have that two-phase language structured or --

CAPTAIN WILLIAMSON: Well, these are your recommendations. So no.

MR. GILL: But if the Navy chooses -- I'd love to see the Navy's recommendation in response to the DOH's recommendation, and maybe we could actually, through discussion, include that as a consensus recommendation, but I can't do that without seeing what the Navy is suggesting.

So the health department threw in a time certain. If the Navy feels that time certain is not practicable and would like to have Navy recommendations on how to move forward, maybe

that's something we can agree to, but I think we need to see how you would like to craft that language for review.

we'll certainly take a stab at it with this sort of two-step model. Let's focus on that first piece of finding a solution, and then once we found a solution, then let's have a reason for us to get back together to settle on the expectation and the implementation of that solution. I think that that will be an approach that --

Again, Steve, you're on the phone. I think that's part of the major discussion sitting down when you get here in Hawaii in two weeks. So maybe that's something we can flush out in sort of the tail end of the document, something we can flush out with our experts sitting in the room between now and then and slap the table.

MR. GILL: Just for clarity because we are on a time line with this document to the legislature and as we've discussed before, there's obvious intersection with the ongoing negotiations between EPA, DOH and the Navy on a consent order. And just because that consent order negotiations may go on beyond the time line under which we have

to submit this document to the legislature, I'd just like to throw out that we do the best we can at the time we submit this document, but we should maybe even reference in this document that at the time when the consent agreement is finalized, that that would append this document or it would -- it could amend the recommendations. It could add to it.

CAPTAIN WILLIAMSON: I think you could weave that into this section. That would be appropriate to weave into this section. And one of our recommendations at the tail end is, no kidding, let's get on with this AOC/SOW and legislature support that and drive us to --

MR. LAU: Get the funding.

CAPTAIN WILLIAMSON: -- get that thing put together and finalized.

MR. LINDER: That's a point I want to make is that, really, I think one of the big recommendations is, at least in our mind, that, essentially, the Navy enter into an enforceable agreement with DOH and EPA to carry out, I'd say, the big picture, must-have issues that we're looking for in terms of environmental protection at Red Hill.

MR. GILL: Okay. So what I'm hearing is maybe we need to add a reference into this section that, you know, details -- specific details of this entire Red Hill situation are still being worked out in the consent agreement, and just this document as its submitted is a representative of a point in time, but that work is continuing beyond the scope of this report.

CAPTAIN WILLIAMSON: And that may be a great way to address that issue which will -- which will develop over time based on the enforcement order that we're putting in place.

MR. GILL: Okay. I think staff can do that. I see heads nodding and look forward to the language the Navy would like to submit under your two-phase process of moving forward or however you'd like to construct that. To the extent that you'd like to have it incorporated in this document, whether there's agreement on it or not, it would be important to have it identified as a Navy recommendation.

Okay. Does that bring us nearly to conclusion here? We're actually on time? Are there specific suggestions about any of the appendices? We talked about adding a couple. The

| 1  | 10 items for field constructed and underground      |
|----|---|
| 2  | storage tanks was one.                              |
| 3  | CAPTAIN WILLIAMSON: I think the EAL                 |
| 4  | action limits based on the wells, that would be     |
| 5  | helpful to have.                                    |
| 6  | MR. LAU: Site specific.                             |
| 7  | CAPTAIN WILLIAMSON: Site specific.                  |
| 8  | Excuse me. Thank you.                               |
| 9  | MR. GILL: The listing of the 46                     |
| 10 | underground storage tanks, field-constructed tanks  |
| 11 | is an additional one.                               |
| 12 | Anything any other clarifications or                |
| 13 | suggestions?  |
| 14 | CAPTAIN WILLIAMSON: I think a reference             |
| 15 | to the document that talked about well, that may    |
| 16 | just be a reference that talked about the northerly |
| 17 | flow.   |
| 18 | MR. LAU: Yeah, the April 15, 2010, memo.            |
| 19 | CAPTAIN WILLIAMSON: Will we include that            |
| 20 | memo or we'll just put a reference to that? I       |
| 21 | don't know if it exists somewhere.                  |
| 22 | MR. POENTIS: We have it.                            |
| 23 | MR. LAU: I think it was submitted to the            |
| 24 | Navy.   |
| 25 | MR. POENTIS: It has been submitted to               |

the department.

MR. GILL: So let me be clear. You're suggesting that memo, which I don't have in front of me, be included in an appendices?

MR. LAU: Or basically summarizing what was in that memo, which was correction of the elevation datum errors which then revealed that there is a gradient toward the northwest or potential suspected gradient.

CAPTAIN WILLIAMSON: So I think, Gary, what we're saying is if the document's posted and people can get to it, then I don't think you need it as an appendix as long as it's referenced, but if people can't get to it and people are going to look at the document, then you put some reference to it in the appendix.

MR. GILL: Why don't we just put it in so people have access to it?

CAPTAIN WILLIAMSON: Well, I don't know if it's that thick or not.

MR. LAU: It's about 10 pages.

MR. POENTIS: I think you put the original Groundwater Protection Plan on your website. So I'm assuming that you can put the appendix of this update, yeah, this update which is

| 1  | a few pages, and then incorporate it by reference.  |
|----|---|
| 2  | MR. LAU: So I believe the date was April            |
| 3  | 2010. There may have been two versions of it.       |
| 4  | MR. GILL: Staff know what we're talking             |
| 5  | about? Can we post that document on the website     |
| 6  | and reference it in this report?                    |
| 7  | MS. PERRY: Roxanne, all the appendices              |
| 8  | for the Groundwater Protection Plan 2008, there's a |
| 9  | whole bunch of them.                                |
| 10 | MR. POENTIS: But there's a 2010 update.             |
| 11 | MS. PERRY: Just the update then?                    |
| 12 | MR. POENTIS: Yeah, because you have the             |
| 13 | full document already posted on your website.       |
| 14 | MS. KWAN: What was the date? April                  |
| 15 | MR. LAU: April 2010.                                |
| 16 | CAPTAIN WILLIAMSON: So I recommend you              |
| 17 | post it on your website and we reference it.        |
| 18 | MR. LAU: Show the link.                             |
| 19 | CAPTAIN WILLIAMSON: Yeah, show the link.            |
| 20 | MR. GILL: Let's make sure we can do                 |
| 21 | that. We'll take that as a recommendation.          |
| 22 | So what I'm what I think we have is we              |
| 23 | have some really good feedback. Obviously, the      |
| 24 | draft that we discussed today needs a little bit    |
| 25 | more work. We've suggested some additions and       |

clarifications and some reformatting and some inclusion of additional appendices, had good discussion on it. I think where we're going to go now is Department of Health staff will take all this discussion and recommendations and put out, yet, another combined report. I think this one will be draft final report for the task force, and we'll try and get that out --

When can we get that out? How much time can we give the public and the task force members to read it? Can I say six days in advance of the meeting so that it could be included in our notice to the public? So when we post the meeting in the lieutenant governor's office and on-line as we're supposed to as a public meeting, the draft document will be accessible to everyone at that point?

MS. PERRY: So we can post on the 5th.

MR. GILL: 5th of December?

MS. PERRY: Yes.

CAPTAIN WILLIAMSON: Can I make a couple quick thoughts before we meet on the 11th? One is before we meet on the 11th, I think it would be helpful for us to sit down and review the final draft. I think that would be helpful.

The second is could we -- if we have any

substantive changes that come out of this, could we highlight that before we see that final draft just 'cause, I mean, I don't -- we've got a couple things. We're doing the history. We're going to tweak a couple areas. I think getting that out in front so we can review that before -- before we get in on the 11th and then we try and slap the table and you get ready to sign, I think we have to get together one more time.

MR. LAU: Thu can contact us.

MS. PERRY: I think it's okay. You said you might need to post that, though. If that's the case, we can post it today and the earliest would be the 2nd of December we can meet.

MR. GILL: Okay. So the recommendation is that the subgroup of the task force meet one more time before the full task force meeting to go over the latest draft? I don't know if that gives us then time between a subgroup meeting and the full task force meeting to post a final recommended draft because if we meet one more time, and then it's going to take a couple days or additional refinements, and, you know, that might not give task force members and the public a full six days to review the final draft. So --

1 MR. CHANG: Last we can get it out by 2 sunshine law will be December 5th; right? MS. PERRY: 3 Correct. The final draft. 4 MR. CHANG: 5 MR. GILL: Well, we need to post notice of the meeting. I don't know that, legally, we 6 7 need to post of the actual final document, but --8 CAPTAIN WILLIAMSON: We have to get a 9 final draft so we can walk in here. I understand 10 we're moving fast. So subject to the rules. MR. CHANG: I was hoping that everybody 11 12 would get their rewrites or the proposed language 13 or appendices changes to us by December 1st so we'd 14 have at least that day to massage it. So by 15 December 3rd, we could somehow -- I don't know how 16 we're going to meet and have any notice. 17 MR. GILL: Well, we'll have to post 18 notice today of another subgroup meeting. 19 MS. PERRY: We can post today. 20 MR. CHANG: We can post today for the 21 3rd? 22 MS. PERRY: Yes. 23 MR. GILL: All right. So I'm hearing a 24 proposal is subgroup can convene another meeting on 25 December 3rd. I haven't looked at anybody's

| 1  | calendar. So that's Wednesday, 10:00 a.m.?          |
|----|---|
| 2  | MS. KWAN: That's next week, Wednesday.              |
| 3  | MR. GILL: A week from today. So we                  |
| 4  | would then have and then we would have to post      |
| 5  | notice at latest                                    |
| 6  | MS. PERRY: I'm sorry. I've already                  |
| 7  | posted notice for the 11th. So that's already       |
| 8  | done. It's just whether or not we have a document   |
| 9  | to distribute.                                      |
| 10 | MR. GILL: Okay. Then maybe a day or so              |
| 11 | at the 3rd or 4th, we could circulate the final     |
| 12 | final draft for the task force members for the      |
| 13 | 11th.   |
| 14 | CAPTAIN WILLIAMSON: That would give us a            |
| 15 | shot at signing this thing on the 11th.             |
| 16 | MR. GILL: Yeah. Let's just have a                   |
| 17 | meeting with no discussion and I'll just say, "Here |
| 18 | it is. We'll sign it."                              |
| 19 | CAPTAIN WILLIAMSON: No. I think that                |
| 20 | ought be our goal; right?                           |
| 21 | MR. LAU: I think we're getting close.               |
| 22 | MR. GILL: And you bring the cupcakes and            |
| 23 | the Board of Water Supply brings the sparkling      |
| 24 | cider, and we'll have a Christmas party.            |
| 25 | CAPTAIN WILLIAMSON: I'll bring some Red             |

| 1  | Hill Shaft water.                                   |
|----|---|
| 2  | MR. GILL: Excellent. Okay. So we're                 |
| 3  | going to recommend then we'll post the second task  |
| 4  | force the final subgroup task force meeting for     |
| 5  | December  |
| 6  | What was it?  |
| 7  | CAPTAIN WILLIAMSON: 3rd.                            |
| 8  | MR. GILL: 3rd, Wednesday, this room                 |
| 9  | if we can reserve it. We'll get back to everybody.  |
| 10 | The usual time. We will try and get out a new       |
| 11 | draft based on today's information by Monday, so    |
| 12 | people at least have a couple days to look at it    |
| 13 | before the subgroup meeting.                        |
| 14 | MR. CHANG: Give us to Tuesday.                      |
| 15 | MS. PERRY: We're waiting on submittals              |
| 16 | as well.  |
| 17 | MR. CHANG: We're waiting on feedback.               |
| 18 | MR. GILL: So one day in advance of the              |
| 19 | meeting, we'll try to get out a consolidated draft. |
| 20 | MR. CHANG: So 9:00 o'clock, Monday                  |
| 21 | morning, get us your changes.                       |
| 22 | MR. POENTIS: So 9:00 o'clock, December              |
| 23 | 1st is when the comments are due?                   |
| 24 | MS. PERRY: Yes.                                     |
| 25 | MR. GILL: We just love working, this                |

group.

Thank you, staff. Any -- let me just post any comments from the public?

MR. PURCELL: Yes. Dan Purcell, member of the public. I do have a comment. I think the gentleman who left early mentioned that he couldn't find some of the original construction docs that talked about the thickness of the tank on the bottom, which concerns me maybe other original construction docs aren't available.

What comes to mind to me is Aloha Stadium with some serious design flaws, dangerous design flaws, and I'm concerned, you know, we've been lucky so far the amount of time the tank's been there. I'm wondering are we confident there are no design flaws in the tank? We know what happens with rebar over the years with concrete. It rusts. It expands. To that point, does the Navy have the ability to test for deformation of the tank and also geospatial positioning and the different parts of the tank? Because, you know, the islands are spreading their liquid and they're slowly sinking. On those points, I don't expect an answer. It's something I'm concerned with, but I haven't really heard addressed.

CAPTAIN WILLIAMSON: I think the inner sleeve is designed to move and be somewhat flexible, hence, the use of steel. So we have seen some areas where the tanks have flexed interior. There are -- means for the tanks to expand and contract were designed into the tanks.

In terms of a fatal design flaw, I don't know that we have one today, but I can tell you that, you know, we've been in the tanks over the years and we've removed some things, and one design flaw was this telltale system that was installed in the tank to help us identify if, in fact, we had fuel got outside the tank in-between the steel liner and the tank. That system was put in place, and that system, because of the piping and the water intrusion on the telltales themselves, was causing accelerated corrosion. So we went in and removed those because they were at risk of causing the tanks to prematurely fail. So we've removed that system.

We have installed additional valving at the base of the tanks which weren't initially put in the tanks to address a potential catastrophic event that could occur inside that area, a seismic event as an example, or something that would cause the pipe at the base of the tank to sheer. Now we've installed valves in there, double valves, so we can secure that so that we can isolate the tanks individually.

There have been a number of improvements that have been made over the years to address those concerns of design flaws. So I don't think we have any design flaws today that are readily apparent, but, again, we're -- and that was one of the reasons for taking and updating this API 653, taking and adapting what we're learning on the outside for above-ground tanks where the tanks are meeting the ground. So taking and applying the lessons we learned from the above-ground tanks to the API system and then adapting what we could of the API in with our tanks and then going through a discipline process to upgrade those to extend them out in a 20-year cycle.

So I think technology is keeping up with us. So I think we're moving in the right direction. Are we all the way there? I don't think we're all the way there yet, and I think this conversation we're going to have with EPA and with DOH and this ongoing statement of work that we're developing will get us closer to being able to say,

hey, we're 100 percent confident we've addressed corrosion; we've addressed a policy process of upgrade the tanks; we have in place the latest and greatest leak detection system; we have employed the latest and greatest inventory system, and we all understand what that is and we're in agreement or we're not in agreement and then we're addressing the gaps. So I think we're making good process.

MR. GILL: Hold on. I'm going to have to ask you to continue your discussion after the meeting, but I appreciate the public comment and the response and you guys can keep chatting if you'd like.

Is there any other comment from the audience at this point? Hearing none.

So I'd like to adjourn this meeting and we will reconvene at the same time on December 3rd, 10:00 a.m., hopefully, in this venue. Thank you all for coming and for your productive discussion and looking forward to a final document on December 11th.

(Meeting adjourned at 12:05 p.m.)

| 1  | CERTIFICATE  |
|----|--|
| 2  | STATE OF HAWAII )  |
| 3  | ) ss.<br>CITY AND COUNTY OF HONOLULU )   |
| 4  |  |
| 5  | I, LAURA SAVO, a Certified Shorthand<br>Reporter in and for the State of Hawaii, do hereby   |
| 6  | certify:   |
| 7  | That the foregoing proceedings were taken down by me in machine shorthand at the time and place herein stated, and was thereafter reduced to typewriting under my supervision; |
| 9  | That the foregoing is a full, true   |
| 10 | and correct transcript of said proceedings;  |
| 11 | I further certify that I am not of   |
|    | counsel or attorney for any of the parties to this case, nor in any way interested in the outcome  |
| 12 | hereof, and that I am not related to any of the parties hereto.  |
| 13 | Dated this 7th day of December, 2014, in   |
| 14 | Honolulu, Hawaii.  |
| 15 |  |
| 16 | LAURA SAVO, RPR, CSR NO. 347   |
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